

# CAB GOLD MINE Quantified

Cattle-Fax: CAB adds \$538/head to Angus bull values.

by *Steve Suther*

It's working! Certified Angus Beef LLC (CAB) employees go to work each day with a mission in mind, to build demand for Angus cattle. That's job No. 1, achieved through the world's leading branded beef program with the expertise and focus of staff, licensees and the CAB producer board.

The CAB and American Angus Association boards of directors commissioned a Cattle-Fax study last year to determine how well the brand was living up to its mission. The industry-leading market research company had documented, in an earlier study, that in 1993 CAB added \$291-\$355/head to the value of Angus bulls. Seven years later, similar models have those numbers up by 52%, at \$468-\$538/head in 2000.

At the mean estimate of 97¢ in per-head value for every million pounds (lb.) of *Certified Angus Beef*® (CAB®) product sold, CAB generates about 25¢/hour through a typical year for *each* Angus bull sold. On registration transfers alone, that's about \$16,250/hour that CAB earns for Angus producers.

The effect is not isolated in

the seedstock sector, because a registered Angus bull adds many times its purchase price to the value of progeny in commercial herds. Prices for calves of known Angus genetics are regularly reported at \$20/head or more above non-Angus calves, a potential premium of more than \$538 in a single calf crop.



In fact, those very increases in value for commercial Angus cattle are reflected in the models used to determine the effect CAB has on Angus bull demand.

"The study took into account changes in commercial cow-calf economics and also considered breed-specific information such

as the price of Angus bulls relative to other breeds," explains David Weaber, Cattle-Fax director of research and special projects.

Weaber noted the 20% annual growth rate in CAB product sales from 1996 to 2000 in the introduction to the

January 2002 report, "Certified Angus Beef program impact on demand and value of registered Angus bulls." He described the 18.4% five-year average CAB acceptance rate in a growing pool of black-hided cattle and the program's increasing carcass utilization rate as keys to overall growth.

The study made use of CAB's

production and sales records in two separate economic models of "methods" that show the effect of CAB sales on Angus bull prices. Cattle-Fax did not directly account for the growing market premiums for CAB-accepted cattle during the years studied, but the results presume that is a factor in maintaining an Angus bull value advantage over

the average of three Continental breeds.

## Methods and models

This Cattle-Fax study is like the one done in 1994, but the models are not directly comparable, Weaber says. They had to be enlarged to maintain the standard of reliability set in the earlier study, taking in historical cow herd inventory data and bringing the other information up to date. Each model explains more than 92% of the variability in Angus bull prices.

Method 1 uses a Price:Profit Index of variables such as calf price and producer profitability, in conjunction with CAB data, to estimate the effect of CAB sales growth on Angus bull prices — \$538/head in 2000, or 97¢ for every million lb. of CAB product sold. A "mean estimate" (right column, Table 1) accounts for genetic improvement within the Angus breed. "Without that adjustment, the model would overstate the CAB contribution," Weaber says.

Method 2 looks at the more subjective breed differences as seen in the margin between Angus bull prices and those of a registration-weighted average of three Continental breeds (see Fig. 1). The economic effects measured in Method 1 should affect all breeds equally, Weaber explains, so Method 2 should reflect the price impact of shifts in breed preference by producers. Simmental, Gelbvieh and Limousin bull sales data are included in the model.

It says CAB product sales of 555 million lb. in 2000 contributed \$468/head to the positive margin of Angus over those Continental bull prices. According to the model, in three of the past four years, the CAB contribution to the margin has been greater than the actual margin.

Since the previous study, Weaber says, "the pricing mechanisms of value-based marketing and a greater emphasis on building information" appear to have

decreased the correlation of economic variables to Angus bull prices. When profitability dipped, Angus bull prices remained relatively stronger than the 1994 models would have expected.

### Acceptance rates and prophecies

The study looked at the CAB acceptance rate as a way to examine the impact of Angus genetics on supply development. The acceptance rate, the percentage of identified, black-hided cattle that are ultimately accepted as CAB product, is highly correlated with annual fed-slaughter totals, Weaber explains. However, growth in slaughter capacity and carcass utilization in an increasing pool of identified cattle has insulated CAB from the effects of its variable acceptance rate.

Cattle-Fax assumed only forward progress from the 18.3% acceptance rate of 2000, thereby making it more closely linked to Angus-sired black cattle. The model varies the acceptance rate by 2% either side of a middle-of-the-road scenario with gains of 0.5 to 1.2 percentage points per year, depending on such external factors as the cattle cycle and profitability. With columns for historical and model-predicted Angus bull prices, CAB product sales and profit index, the acceptance rate model projects the effect of CAB on Angus bull prices through 2006 (see Fig. 2 and Table 2).

Note again that the projected effect on bull prices is the product of multiplying CAB product sales by that mean estimate factor of 97¢/head. That points to a CAB contribution of \$681.07 to the value of each Angus bull in 2006.

“You could think of it as almost a dollar per head added to the price of every Angus bull sold, for every million pounds (lb.) of CAB product sold,” Weaber says. If CAB sales are relatively flat, but still above the half-billion lb. level, the

contribution to Angus bull prices is still above the \$500/head level.

Weaber admits there may be greater fluctuations due to currentness, or relative finish level in marketable cattle, and the percentage of black-hided cattle will likely increase from the 35% level seen in 2000 and held constant in the model. However, acceptance rate was allowed as the one independent variable to clearly show its effect.

It must be noted that the results of 1994 study came within \$10 of projecting the same CAB effect on 2000 prices as the current model’s \$538 — even though it envisioned that accomplishment with less than half of the 555 million lb. of CAB product actually sold in 2000.

That earlier study saw CAB product sales peaking at 247 million lb. in 1997 before falling off to 211 million lb. in 2000. The reality of 163% more tonnage sold than expected really eclipsed the projection. Looking at the 1993 line in the table and knowing what we know today, you can see that the model ascribes about \$120/head of Angus bull value at that time to CAB sales. That compares with a stated effect of about \$355/head in the 1994 study.

### Conclusions

“The key is that Angus, certainly, and CAB, especially, had a huge influence in determining the genetic makeup of a huge number of cattle,” Weaber says. “That comes back to help you in supply development for CAB. It also added value to Angus bulls, no question — you just have to decide how much.”

Just as Angus producers stand to gain \$1/head for another million lb. of CAB product sold, they stand to lose \$1/head when that volume in sales is lost for any reason. The study points out a direct and positive relationship.

“The CAB program has been

**Table 1: CAB® effect on Angus bull value — Method 1**

	Actual Angus bulls	Proj. Angus bulls	CAB product sales	Price profit index	Beef cow inventory	Annual CAB contribution mean est.
	— (\$/hd.) —	— (\$/hd.) —	(mil. lb.)		(000)	(\$/hd.)
1980	\$1,636	\$1,718	0.00	18.33	37,107	\$0.00
1981	\$1,558	\$1,651	0.00	24.45	38,773	\$0.00
1982	\$1,524	\$1,649	0.15	30.84	39,230	\$0.14
1983	\$1,622	\$1,586	0.30	-7.58	37,940	\$0.29
1984	\$1,620	\$1,420	9.26	-67.64	37,484	\$8.98
1985	\$1,466	\$1,445	16.45	-95.77	35,406	\$15.96
1986	\$1,268	\$1,320	28.45	-87.92	33,753	\$27.60
1987	\$1,797	\$1,960	43.28	-54.01	33,945	\$41.99
1988	\$1,940	\$1,917	63.68	-11.80	33,183	\$61.77
1989	\$2,069	\$2,085	71.02	23.48	32,488	\$68.89
1990	\$2,138	\$2,233	84.90	60.46	32,455	\$82.35
1991	\$2,263	\$2,326	79.90	90.99	32,520	\$77.50
1992	\$2,389	\$2,290	87.98	84.49	33,007	\$85.34
1993	\$2,453	\$2,321	123.40	83.64	33,365	\$119.70
1994	\$2,624	\$2,534	171.99	68.37	34,603	\$166.83
1995	\$2,212	\$2,181	226.47	25.36	35,190	\$219.68
1996	\$1,954	\$1,786	259.83	-28.17	35,319	\$252.03
1997	\$2,198	\$2,152	331.82	-41.03	34,458	\$321.87
1998	\$2,234	\$2,202	411.50	-70.29	33,885	\$399.16
1999	\$2,051	\$2,129	494.70	-54.89	33,745	\$479.86
2000	\$2,292	\$2,403	555.01	-3.53	33,569	\$538.36

**Table 2: Middle-of-the-road acceptance rate scenario**

	Actual Angus bulls	Projected Angus bulls	CAB contribution	CAB® product sales	Price profit index
	— (\$/hd.) —	— (\$/hd.) —	(\$/hd.)	(mil. lb.)	
1980	\$1,636	\$1,602	\$0.00	0.00	18.33
1981	\$1,558	\$1,623	\$0.00	0.00	24.45
1982	\$1,524	\$1,631	\$0.14	0.15	30.84
1983	\$1,622	\$1,549	\$0.29	0.30	-7.58
1984	\$1,620	\$1,487	\$8.98	9.26	-67.64
1985	\$1,466	\$1,460	\$15.96	16.45	-95.77
1986	\$1,268	\$1,346	\$27.60	28.45	-87.92
1987	\$1,797	\$1,875	\$41.99	43.28	-54.01
1988	\$1,940	\$1,890	\$61.77	63.68	-11.80
1989	\$2,069	\$2,036	\$68.89	71.02	23.48
1990	\$2,138	\$2,177	\$82.35	84.90	60.46
1991	\$2,263	\$2,258	\$77.50	79.90	90.99
1992	\$2,389	\$2,316	\$85.34	87.98	84.49
1993	\$2,453	\$2,493	\$119.70	123.40	83.64
1994	\$2,624	\$2,534	\$166.83	171.99	68.37
1995	\$2,212	\$2,181	\$219.68	226.47	25.36
1996	\$1,954	\$1,786	\$252.03	259.83	-28.17
1997	\$2,198	\$2,152	\$321.87	331.82	-41.03
1998	\$2,234	\$2,202	\$399.16	411.50	-70.29
1999	\$2,051	\$2,129	\$479.86	494.70	-54.89
2000	\$2,292	\$2,403	\$538.36	555.01	-3.53
2001			\$565.28	582.76	
2002			\$587.89	606.07	
2003			\$605.52	624.25	
2004			\$623.69	642.98	
2005			\$648.64	668.70	
2006			\$681.07	702.13	
	<b>Mean estimate =</b>				<b>\$0.97</b>

\*Note: Projected CAB contribution is calculated using the mean estimate determined by the regression model. No diminishing marginal returns are assumed.

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successful in improving demand for Angus bulls,” Weaber says. “In 2000, CAB product sales contributed between \$468 and \$538 per head to average Angus prices. Angus bull prices are expected to increase by an

additional \$125-\$150 per head between 2000 and 2006 as a direct result of growth in CAB sales.”

Economic factors may mask much of this improvement in coming years as the beef

industry goes through a cyclical period of expansion, he adds. Lower calf prices and negative returns to cow-calf producers are expected to begin in 2006 because of expansion. “That will have a dampening effect on bull

demand in general, but growth in CAB sales will make a positive contribution to Angus bull prices.”

Larger sales during the next few years will have to be supplied through a combination of higher acceptance rates, a higher percentage of cattle identified as eligible for the program and a higher utilization rate of each carcass that is accepted, Weaber concludes.

Fed-cattle slaughter and overall beef production are expected to decline to cycle lows by 2004 and then begin to increase. This will make it even more challenging to increase CAB product sales and reach future growth targets, thereby fulfilling the underlying goal of increasing demand for Angus bulls, he warns.

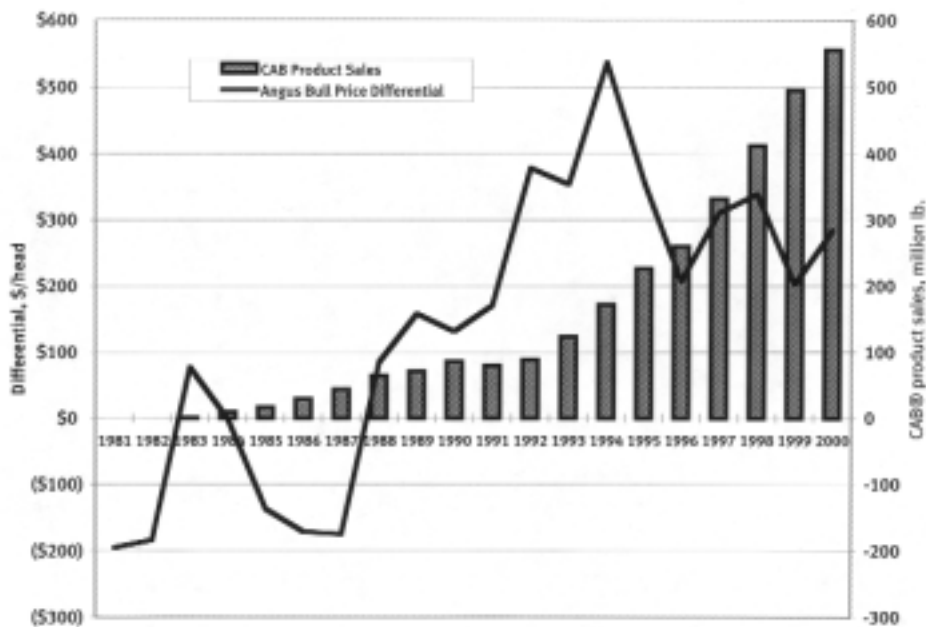
“The CAB program has reached the point where efforts in increasing the identified supply of potential CAB cattle are of great importance,” Weaber says. “Current efforts to identify and develop supplies of eligible cattle to meet CAB specifications will be the most direct and influential method of increasing the supply of CAB product.

“Doing so will create more data pertaining to the genetic ability of the Angus gene pool to meet the CAB carcass specifications,” he adds. “This evolution will likely lead to a more accurate valuation of Angus genetics and Angus bulls.”



**Editor’s Note:** A full copy of this report is available at [www.cabfeedlots.com](http://www.cabfeedlots.com) or [www.angus.org](http://www.angus.org), or by request to the author at [ssuther@certifiedangusbeef.com](mailto:ssuther@certifiedangusbeef.com).

**Fig. 1: Angus-Continental price differential and CAB product sales**



**Fig. 2: Number of head certified annually, middle-of-the-road, optimistic and pessimistic acceptance rate scenarios**

